

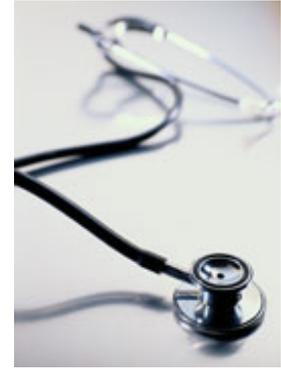


## As Goes Massachusetts, So Goes the Nation? How Reform Is Impacting Health Care in the Bay State

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The U.S. health care system is beginning to feel the effects of landmark reform legislation, although much of the law has yet to be implemented and opponents have persisted in calling for its repeal. But lessons learned in Massachusetts, where a similar program was launched in 2006, indicate that some of the dire predictions about national reform may not come to pass. New Wharton research examining mandated insurance coverage and its effect on health care use and patient outcomes in the Bay State shows that -- at least initially -- broader coverage has not led to dramatic overuse of the system or skyrocketing hospital costs.

As expected, the Massachusetts law increased health insurance coverage levels in the state, but Wharton health care management professor [Jonathan Kolstad](#) and Yale University economics professor Amanda Kowalski set out to examine how more people carrying health plans might alter the system itself, through emergency room use, hospital stays and preventative care. Their findings are detailed in the paper, "[The Impact of Health Care Reform on Hospital and Preventive Care: Evidence from Massachusetts](#)" (available as a National Bureau of Economic Research working paper).



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"Coverage interacts with health care delivery in important ways," Kolstad says. "There are a lot of media reports out there, but this is the first time hospital data has been used to look at health care production and outcomes in Massachusetts" following reform implementation.

The study does not, however, examine expanded coverage in the context of the cost of new premiums, including government subsidies to provide health insurance to low-income workers. Both the Massachusetts and federal laws provide subsidies to pay premiums for people living near, or below, poverty levels. "Of course there is a cost," notes Kolstad, who cautions that the paper does not pass judgment on whether the state or national reform efforts are "a good thing or a bad thing. I would say only that the benefits we would like to see, in the emergency rooms and in prevention, are prerequisites to a good outcome."

The Massachusetts legislation closely resembles the Patient Protection and Affordable Care Act, signed into law by President Obama last year. While much of the federal legislation has yet to take effect, many of its key features are the same as in Massachusetts. Both rely on individual and employer mandates, expansion of public subsidies for the poor, and new insurance exchange markets to achieve near universal coverage. Nationally, an estimated 50 million people lack health insurance coverage.

Using 36 million hospital patient discharge records, Kolstad and Kowalski first set out to look at how the Massachusetts reform altered levels of health insurance coverage. To control for changes that might be occurring across the health care landscape nationally, the authors used data from a representative sample of 20% of all U.S. hospitals. Kolstad notes that when he and Kowalski started the project, it was not clear that there would be a national health care reform law, or what it might look like. "We were interested in, 'Did it work at the state level?' But the national applicability later became important."

The researchers found that the Massachusetts reform resulted in a higher level of coverage than in the rest of the states. For the entire population in the Bay State, including people over 65, coverage rose from

89.5% to 94.5% following reform. Nationally, coverage declined slightly from 84.6% to 84.4% during the same period. While Massachusetts had a high rate of coverage to begin with, it was among 17 states with a rate of 88% or more, according to the paper. Among those who were hospitalized, the rate of uninsured dropped 36% in Massachusetts following enactment of the state's new health law. "There's very little question that coverage was expanded by the reform," Kolstad says.

## By the Numbers

Next, the researchers set out to explore whether expanded coverage led to more use of hospital services, or whether it altered the way people received care by improving access to different settings, such as outpatient clinics. To start, the researchers looked into the length of hospital stays. The data shows that the Massachusetts reform led to what Kolstad calls a "statistically significant" decline of 1% in the length of stays. Most of the decline came at the end of relatively long hospitalizations, he adds. The decline in the length of stay suggests that despite some predictions, major insurance expansion did not lead to more intense demand for services. Indeed, it reduced the consumption of services, although only for long stays.

Kolstad says it is not clear why the duration of hospital stays was reduced; it could be because the newly insured were in strict managed care plans that carefully monitor the length of stay. Or perhaps physicians might have been more willing to release patients with insurance earlier than those without coverage because they are more confident the patient would have access to follow up care outside the hospital.

The researchers also examined data about patients admitted to hospitals through emergency rooms. According to Kolstad, because emergency rooms are legally required to treat all those who seek care, they are often viewed as the "insurance of last resort" for those without coverage. But emergency rooms are not designed to treat routine ailments or provide preventive care. Shifting emergency room cases to outpatient, primary care facilities could prevent patients from growing sicker and requiring additional hospitalization, according to Kolstad.

The paper shows that, following enactment of reform, Massachusetts experienced a 5% decline in patients admitted to the hospital from the emergency room. When the data is examined by income, Kolstad points out that most of the decline in admissions came from poor populations, which he says probably had lower rates of insurance and less access to primary or preventive care before coverage was expanded.

Kolstad and Kowalski also looked at preventive treatment using a measure of "appropriate care" to avoid hospitalizations (such as antibiotic use or wound cleaning for diabetics) as defined by the U.S. Agency for Healthcare Research and Quality. The research indicates that after reform, patients were admitted for these conditions at lower rates than before the Massachusetts legislation was enacted. The researchers also looked at measures of quality care and medical errors to try to gauge the impact of reform on these health care issues. The results were inconclusive with some areas showing an improvement, while others showed more problems post-reform. "We ran these results, but there was not an obvious story that came out," says Kolstad. He suggests that future research on these types of health effects will be an important follow-up to the current paper.

Finally, the researchers examined total medical costs. According to the paper, expansion of insurance could lead to rising costs if the newly insured seek additional, more expensive care because a third-party insurance company would be picking up the bill. At the same time, the paper notes, insurers are typically able to negotiate favorable prices for care, driving the costs downward. Managed care companies can even dictate treatment decisions through limits on the quantity of care, such as requiring prior authorization for certain procedures. "Consequently, it is an empirical question whether an increase in health insurance coverage among the hospitalized population will raise or lower costs," meaning the answer can only be determined by analyzing the data, the paper states.

For this part of their study, Kolstad and Kowalski used Medicare data to calculate each hospital's total operating expenses. The findings show that expanded health insurance coverage did not increase or decrease Massachusetts' rate of increase in hospital costs. "There has been a lot of discussion about 'bending the cost curve,' but we see no real impact in either direction," Kolstad notes. "If you thought costs were going to go through the roof, this is good news. If you thought coverage expansions would automatically eliminate cost growth, this is bad news."

Kolstad says health economics has evolved into its own discipline because health care is defined, more than most markets, by asymmetrical information, or a lack of clear and comprehensive information shared equally by all involved. As a result, the sector is characterized by "all the market failures that make it so unique." For example, he points out that it is hard to evaluate whether a physician is good or not in the same way one might choose between one brand of canned soup and another. Additionally, he observes that physicians not only give advice that determines demand for health care, but they also provide the services to meet that demand.

"What we want this market to deliver, from a social perspective, requires interventions" in the current system, Kolstad notes. He says reform measures are meant to correct market failures, "but whether or not it is done right is tough." Even though health care is expensive, he continues, patients are benefiting with longer, healthier lives than in the past. "We are spending more," he concludes, "but we are getting a return."

As the debate over national health care reform continues to churn, Kolstad says data should drive interventions throughout the system to make medical treatment affordable and effective. For example, the national health care reform legislation calls for each state to set up an insurance exchange beginning in 2014; understanding what does and doesn't work will be critical to the success of this or any policy, according to Kolstad. "What we're doing is bringing the tools of empirical economics to these questions of health policy to really let the data tell us what is happening [rather than relying on] the conventional wisdom or political positions alone."

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